

Does More Data Mean More Answers?



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Twenty years ago, two incremental developments forever changed the investing landscape. First, in the late 1990s, the widespread use of the internet, along with emerging services such as Yahoo Finance—established in 1997—provided free and easy access to basic information on securities. Items such as price, fundamental characteristics, and charts became available to the general public. Secondly, in 2000, Regulation Fair Disclosure, commonly known as "Reg FD", meant that all disclosures of

material information must be made in a public manner. This led to corporate disclosure becoming more standardized and certainly more widespread. In theory, everyone has access to the same information.

In 2018, JP Morgan was reported to have 50,000 technology staffers and a fintech budget of \$11 billion. Yet, the advantage of spend and staff isn't clearly apparent. For example, Google processes billions of searches every day and provides efficient access to nearly limitless information. As time marches, the democratization of data advances further. Information has become commoditized even in areas where data has been historically quite guarded or expensive.

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For example, in 2020 numerous valuable offerings of data became available, often improving assessment of the economy in light of the COVID pandemic. Things like cell phone mobility data, restaurant reservations, airport traveler counts, spending data, and many others have been provided this year. Countless other stats, such as imagery from private satellites are available for a fee. One vendor we utilize in Silvercrest research provides over 170 million time series on economic data from around the globe. Whether paid for or free, data is infinitely more abundant than even recent history.

There is also an arms race towards faster information. In that realm, investing, or more accurately, trading, takes place over a very short period of time. One version of this approach was captured in the odd movie—*The Hummingbird Project*—which tells the story of a fictional company trying to build computer code and fiber optic lines in order to gain infinitely small timing advantages over competitors. This race for "faster" information is not worthwhile for most investors. Rather, it is the realm of high-frequency traders.

It is hard to imagine now the "pre-big-data" environment when a common problem was simply obtaining access to information. Massive hard copy research publications were produced and distributed by mail or courier. In the more recent past, large investors, such as hedge funds, paid analysts to count cars in parking lots or shoppers in stores. That information, and so much more, is readily available to anyone willing to invest the time or money to find the right sources.

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In dealing with this deluge, investors must evolve from hunting and gathering to a process centered on organization and insight. Abundant data needs to be organized in formats that allow for comparison across categories and time frames. Visualization is often a helpful tool for making first glance comparisons. Further, one must balance the need for statistical rigor with the recognition that markets don't generally follow common statistical rules. Most statistical evaluation implies that more data leads to robust results. However, in some cases a single data point may be more illuminating than thousands of others. One example in our work is an examination of "worst" and "best" results for

different metrics, relative to one another. This can reveal a portfolio bias that might not be readily apparent on a more "normal" day. Flexibility is also required as the metrics that are meaningful and relevant to investors can change over time. In economic analysis, we have seen this with the shift away from longer-term metrics to data reported on a shorter cycle, or even in real time. Another concept of note is ongoing reminders of the relevance of various data series. Simply put, we must guard against putting too much weight on information that is interesting but not especially relevant.

Information has become abundant, yet it is essential to evolve beyond merely gathering data. As discussed in the following piece, Artificial Intelligence—Answering a Few Key Questions, artificial intelligence is a powerful tool to sort through the data

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and identify patterns, trends, and relationships. In many ways, the field of artificial intelligence is merely the next advance in a long trend towards building processes to effectively use the ever-increasing amounts of data available to modern investors.

In spite of the need to evolve tools and techniques, the recipe for success remains the same. Information plus judgement creates insights, and those insights lead to a successful investing strategy.

5,000

Data interactions per connected person/day by 2025

Source: IDC

3.5 Billion

Searches per day

Source: worldometers.info, internetlivestats.com, comscore.com

10x

Increase in the amount of information available by 2025

Source: IDC

90%

Of all data was created in just a few years prior to 2017

Source: IBM, 2017 survey data.

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